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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/597,316

07/27/2006

Christian Overbergh

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EXAMINER

BENEDIK, JUSTIN M

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/597,316	<b>Applicant(s)</b> OVERBERGH ET AL.	
	<b>Examiner</b> JUSTIN BENEDIK	<b>Art Unit</b> 3644	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) 4-8 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/8/2007</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 4-8 are objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim *should refer to other claims in the alternative only, and/or cannot depend from any other multiple dependent claim*. See MPEP § 608.01(n). Accordingly, the claims 4-8 are not being further treated on the merits.

In claim 1, the language "a rear skin integral on the one hand with a trailing edge of an upper surface portion of the aerodynamic skin and on the other hand with a trailing edge of a lower surface portion" is confusing. It appears that it should be the frontal area that is integral with the upper and lower trailing edges. Similar use of the "on one hand" and "on the other hand" language later in the claim is also confusion as to what a "on one hand" implies. Additionally, lines 14-16 claim that the wall is anchored on one hand to the aerodynamic skin and on the other hand to the rear skin. This is confusing since the rear skin is part of the aerodynamic skin.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over O'Neil (US 5,806,808) in view of Cordier et al. (US 6,607,168 B1) and in further view of Carns (US 1,781,160).**

Regarding claim 1, O'Neil teaches a slat which inherently has an outer skin, an "aerodynamic skin" which can be defined as the skin surrounding the plenum cavity, A bird impact frontal area (19), a upper and lower rear skin which can be defined as the skin that covers the rest of the slat (top and bottom beyond the plenum cavity), a plurality of ribs spaced out in a longitudinal direction along a leading edge (shown in Figure 7).

O'Neil does not teach a single wall in-between each rib anchored from top to bottom said wall forming an angle less than  $45^{\circ}$  with the leading edge longitudinal direction.

Cordier teaches a single wall (Shown in Figure 1) in-between each consecutive rib (Figure 1) and attached to the upper and lower trailing skin. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the walls of Cordier into the invention of O'Neil in order to, provide additional support and strength for the slat.

O'Neil and Cordier do not teach the walls to be less than a  $45^{\circ}$  angle with the leading edge longitudinal direction.

Carns teaches walls/struts to be less than a  $45^{\circ}$  angle with the leading edge longitudinal direction (#15 Figure 1). It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the walls of Carns into the invention of O'Neil in order to, as stated by Carns, provide the best and most effective structure configuration to be as light as possible with the requisite strength distributing the parts so as to not have undue material.

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Regarding claim 2, O'Neil, Cordier and Carns teach all of the limitations of claim 1.

They do not teach the wall to be deflected between 25° and 35° with the leading edge longitudinal direction. It would have been obvious to one having ordinary skill in the art at the time the invention was made to angle the walls between 25° and 35° with the leading edge longitudinal direction, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. In re Aller, 105 USPQ 233.

Regarding claim 3, O'Neil, Cordier and Carns teach all of the limitations of claim 1.

Cordier further teaches a single wall (Shown in Figure 1) in-between each consecutive rib (Figure 1) spaced out along the leading edge. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to incorporate the walls of Cordier into the invention of O'Neil in order to, provide additional support and strength for the slat.

### ***Conclusion***

The prior art made of record and not relied upon considered pertinent to applicant's disclosure is located in the attached PTO-892 form.

All of the related, attached prior art are drawn to different slat configurations and airfoil construction.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN BENEDIK whose telephone number is

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(571)270-7824. The examiner can normally be reached on Monday-Thursday 8:00am-12:00pm and 1:00pm-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mansen Michael can be reached on (571)272-6608. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. B./  
Examiner, Art Unit 3644

/Michael J. Carone/  
Supervisory Patent Examiner,  
Art Unit 3641

6/16/2009